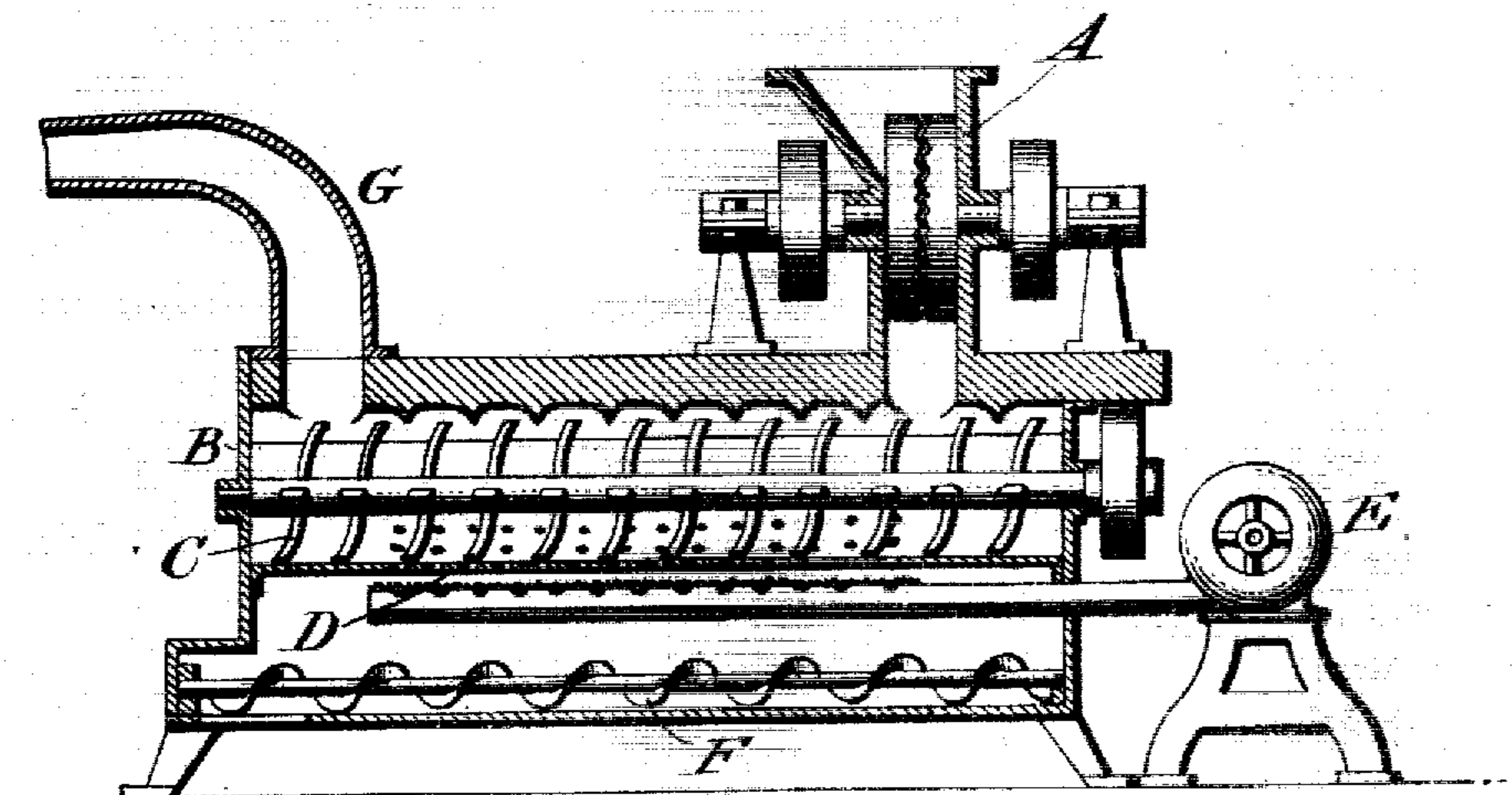


No. 822,883.

PATENTED JUNE 5, 1906.

J. S. COCHRAN.
CELLULOSE.

APPLICATION FILED MAR. 13, 1906.



Witnesses
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ONE-THIRD TO FRANK TAYLOR, OF WILMINGTON, DELAWARE

CELLULOSE.

No. 822,883.

Specification of Letters Patent.

Patented June 5, 1906.

Original application filed September 24, 1904, Serial No. 225,776. Divided and this application filed March 13, 1906. Serial No. 305,781.

To all whom it may concern:

Be it known that I, JAMES S. COCHRAN, a citizen of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Cellulose, of which the following is a specification.

My invention consists of a new process or method of utilizing the fuzz of cotton-seed hulls to produce a cellulose which is useful for the manufacture of gun-cotton or other explosives, artificial silk, &c.

The figure represents a vertical section of a device that may be employed in carrying out my invention, and in which—

A designates a grinding or attrition device of any suitable form, and B designates a chest which is in communication with the outlet of the case of said device.

C designates an agitator within said chest, and D designates a sieve or screen in the chest below said agitator. Leading into said chest is the pipe of a blower or an air-blast E, the same having outlets which are directed toward said sieve and guarded by gauze or other suitable material. Below said screen in the chest is a conveyer F, and above the same is the chute G, which is in communication with the interior of said chest and extends outside of the same.

I find that after cotton-seed is divested of all staple fiber, such as cotton and lint, there remains on the hull a non-staple nature of the order of fuzz which of itself possesses valuable qualities. I subject the hull so divested to grinding or attrition or other mechanical means, such as by the device A, whereby said fuzz is disconnected from the hull in pure and unchanged condition and then subject the hull and fuzz to an air-blast, say in the chest B, say by the device E, thus separating the fuzz from the hull, leaving the

former by itself, without admixture, the same then being blown or drawn into the chute G, by which it is directed elsewhere. The bran or hull proper, being heavier than the fuzz, drops through the sieve D below the same, from whence it may be removed by the conveyer F.

I am aware that it has been proposed to subject cotton-seed to solvents or other chemical action to remove the fuzz from the hull, which practically destroys the same as fuzz; but in my case I reclaim said substance from the hull in natural condition, producing a commercial commodity for various purposes.

In some cases I bleach the fuzz, and thus form a cellulose of low grade which is admirably adapted for the manufacture of gun-cotton or other explosive.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The method of making cellulose from the fuzz of cotton-seed hull consisting in first removing all of the staple fiber and lint from the seed and then mechanically reclaiming the fuzz from the hull in pure and unchanged condition.

2. The method of making cellulose from the fuzz of cotton-seed hull consisting in first removing all of the staple fiber and lint from the seed, then mechanically reclaiming the fuzz from the hull in pure and unchanged condition and next bleaching said fuzz.

3. The method of removing fuzz from cotton-seed hulls consisting in removing said fuzz first by grinding and attrition and next by an air-blast whereby the fuzz is preserved intact as such and without admixture.

JAMES S. COCHRAN.

Witnesses:

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